

ABSTRACT OF THE DISCLOSURE

A method for performing a search in a content addressable memory (“CAM”) device comprising comparing a search key with compound entries in a CAM array, wherein at least one of the compound entries includes (i) a ternary CAM word having a data word and a mask word, and (ii) a mask specifier that indicates the state of the mask word, and wherein the search key includes (i) a search word component, and (ii) a search mask component, and wherein the ternary CAM word is compared with the search word and the mask specifier is compared with the search word component; and generating a match signal associated with an compound entry that matches the search key.